


An

ESSAY

on

Acute Hepatitis.

By

*John P. Lewis**of Pennsylvania.*

in

ESSAY

ON

THE HISTORY OF THE

BY

John G. Jones

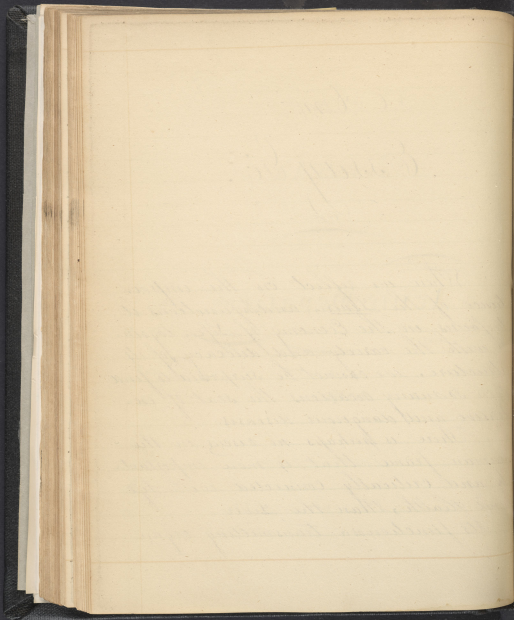
of Pennsylvania

One
Essay &c.

When we reflect on the importance of the Liver, and the functions it performs, in the Economy of Life, together with the variety and delicacy of its Structure, we cannot be surprised to find it on so many occasions the seat of extensive and dangerous diseases.

There is perhaps no viscus in the human frame that is more importantly and critically connected with Life and Health, than the Liver.

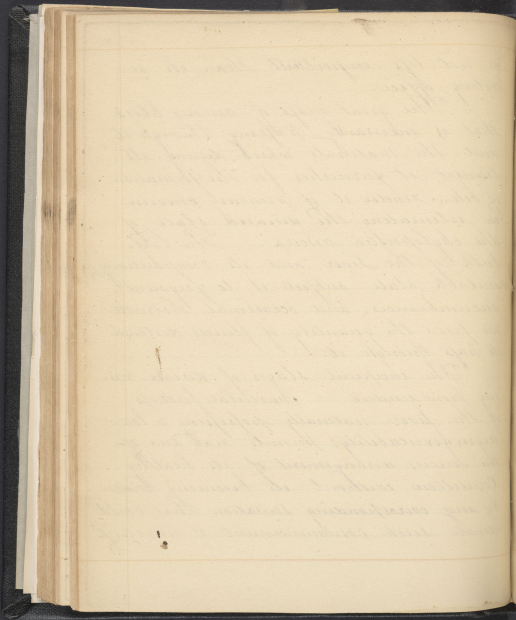
Its function is a transmitting organ



is not less important than its secreting office.

The great mass of venous blood that is incessantly passing through it, and the materials which during its transit it furnishes for the formation of bile, render it of primary concern in estimating the diseased state of the chylific viscera. The large bulk of the Liver, and its comparatively irritable state subjects it to frequent incumbrances, and occasional obstructions from the quantity of fluids destined to pass through it.

The incipient stages of disease, arising from undue vascular fullness of the Liver, naturally possessing a low degree of excitability, permits real and often serious derangement of its healthy condition without its becoming known by any corresponding sensation that could denote such commencement of mischief."



But without going into minute statement, it may be observed, that the liver, like most other parts of the body, is liable to two kinds of inflammation, or more properly inflammation under two forms, the acute and the chronic; and it has generally been supposed that these varieties of disease consist in fact, of a difference in the absolute seat of the inflammation.

Some physicians have suggested that the inflammation is of the acute form when the enveloping membrane of the liver is affected, and of the chronic form when the parenchyma or substance of the organ itself is too highly excited; this is Doctor Cullen's opinion. Others conceive that the acute inflammation appears, when the extremities of the hepatic artery are particularly affected; and the chronic when the venae hepaticae or

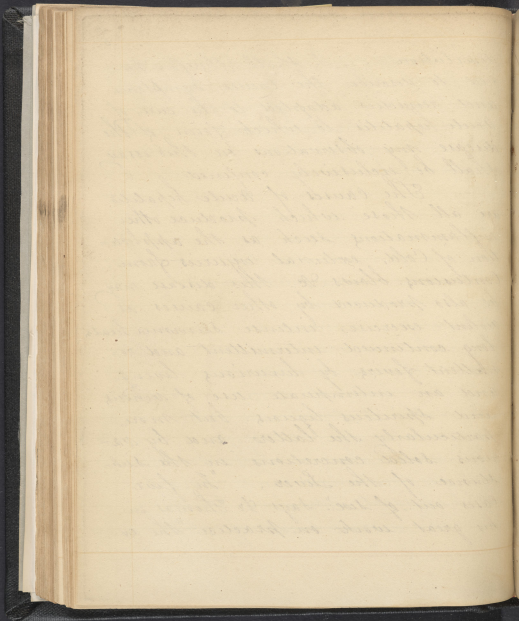
vena porta (which convey the principal portion of the blood through the Liver) are the Seat of morbid actions.

But in a practical point of view it is of very little consequence which of these opinions may be correct.

The former by their active operation and rapid influence, unless quickly counteracted soon destroy the energies of Life: the latter, by their slow and insidious progress, give a check to the enjoyment of health, and gradually undermine the constitution without immediate alarm, until the evil has proceeded so far as to baffle medical skill. But of the latter I shall say nothing as the varieties of the class of Diseases termed Disorders or Liver Complaints are so numerous and diversified as to prevent me from noticing them in the narrow limits of an inaugural

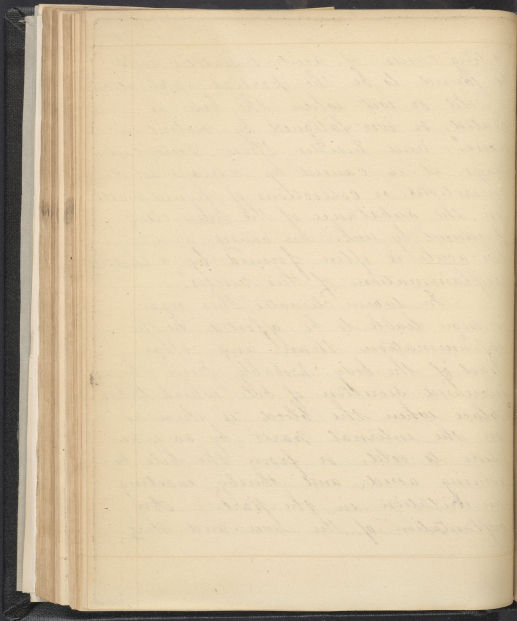
disertation. I shall therefore proceed to describe the causes, symptoms, and remedies adapted to the cure, of acute hepatitis. to which form of the disease my observations in this essay shall be exclusively confined.

The causes of acute hepatitis are all those which produce other inflammations such as the application of cold, external injuries from contusions, blows &c. this disease may be also produced by other causes as violent exercise, intense summer heats, long continued intermittent and remittent fevers, by luxurious living, and an intemperate use of vituous and spiritous liquors. but more particularly the latter and by various solid concretions in the substance of the Liver. "In five cases out of six," says Dr. Thomas in his great work on practice "the ex-



citing cause of acute hepatitis will be found to be the partial application of cold or wet when the body is heated, or over fatigued by violent exercise." and besides these. Doctor Cullen says it is caused by various solid concretions, or collections of liquid matter in the substance of the liver itself produced by unknown causes, and the acute is often formed by a chronic inflammation of this viscus."

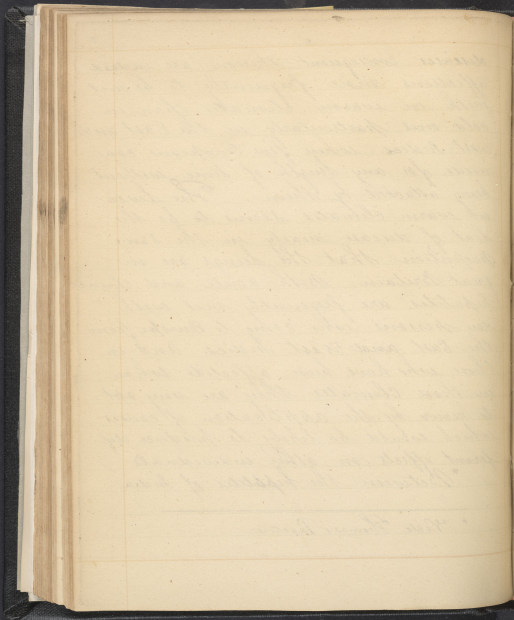
In warm climates this organ is more liable to be affected with inflammation than any other part of the body, probably from the increased secretion of bile which takes place when the blood is thrown on the internal parts by an exposure to cold, or from the bile becoming acid and thereby exciting an irritation in the part. And inflammation of the liver and this



diseases consequent thereon are indeed affections more frequently to be met with in warm climates than in cold ones particularly in the East and West Indies where few Europeans can reside for any length of time without being attacked by them. The Liver in warm climates seems to be the seat of disease nearly in the same proportion that the Lungs are in Great Britain. Both acute and chronic hepatitis are frequently met with in persons who come to Europe from the East and West Indies. And in those who have been affected when in those climates they are very apt to recur by the application of causes which would be likely to produce different effects on other individuals.

* Between the hepatitis of India

* Vide Thomas's Practice



and that of Europe there is no small dissimilarity in the symptoms. The flux which may be termed the pathognomonic of the former is always wanting in the latter. That of India partakes more of inflammatory congestion and obstruction: the others of active inflammation, and if not early checked, frequently runs on to suppuration. Such an occurrence in the East or West Indies, is principally met with among those lately arrived from Europe and it may in most cases be traced to intemperance, violent exercise in the sun or to sudden exposure to cold when the body has been in a state of considerable perspiration. The hepatitis of India is generally acknowledged to be in all similar stages a milder disease than the Sporadic hepatitis of this country, the phlogistic symptoms being less violent.*

* See Dr Saunders treatise on the Liver —

The symptoms of this disease are generally a sense of chilliness, succeeded by pain in the right hypochondrium which is usually pungent but sometimes dull extending towards the spine and scapula. Cough, oppression in the respiration, and difficulty of lying, except on the affected side. Though instances occur where the patient is unable to lie on either side* nausea often with a vomiting of apparently bilious matter, accompanied with considerable fever, great watchfulness and occasional delirium. Extreme thirst also attends this disease, white fur covering the tongue and extending to the fauces, defecation of spirits. Sometimes accompanied with singultus and loss of appetite. Pressure on the region of the liver where there is usually some tension induces con-

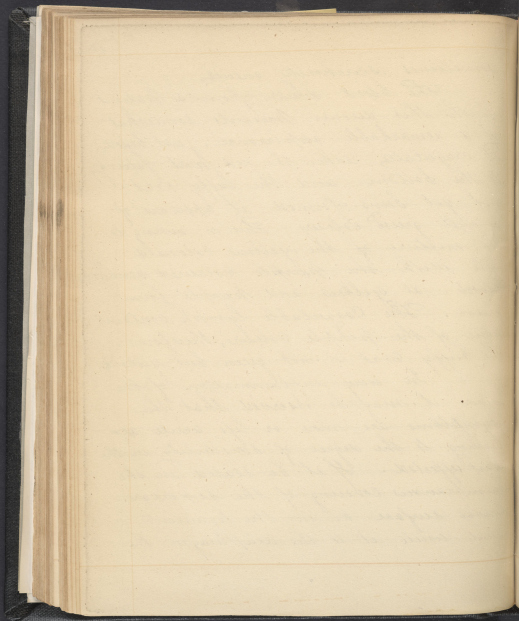
*See Doctor Fothergill's treatise on Liver Complaints.

-siderable increase of pain and tendency
 to cough and the cough attending
 this disease is more frequently dry than
 moist. the bowels are generally inactive
 though often irregular. the urine is
 secreted in small quantities, and is
 of a high colour often tinged with bile;
 the pulse strong, hard, and frequent. some-
 times exceeding one hundred and twenty
 in a minute, and at times intermit-
 ting; it is attended occasionally with
 a jaundiced colour of the skin, arising
 from the bile not getting readily into
 the common duct, by reason of the
 pressure of the inflamed liver, on the
pari. biliarii or by calculi in the
 parenchyma of the liver. The contin-
 uance of the inflammation occasionally
 produces adhesions of the organ to the
 contiguous parts; or considerable enlarge-
 ment of particular portions, such as
 the lobes, when suppuration or

Sometimes scirrhusity ensues.

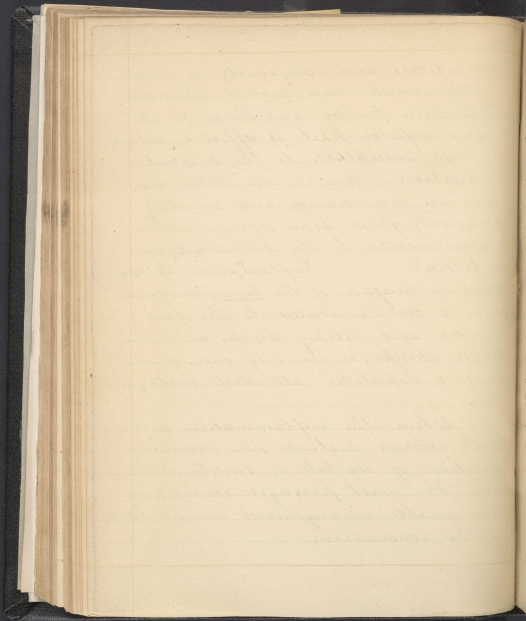
The blood drawn from a Patient with this disease presents somewhat of a remarkable appearance, just before it coagulates, when the red part falling to the bottom, and the buffy coat not yet being formed it appears of a dull green colour. This is owing to the mixture of the yellow coloured bile with the purple coloured venous blood, as yellow and purple form green. The coagulable lymph contains none of the purple colour, therefore the buffy coat is not green but yellow.

In every inflammation of the Liver it may be observed that the symptoms are more or less acute according to the degree of sensibility in the part affected. If it be seated in the membranous covering of the superior convex surface or in the ligaments that unite it to the diaphragm, the



pain, fever, and difficulty of breathing are much more violent than when its interior pulpy substance or its concave inferior part is affected, which are less susceptible to the morbid impression. But in the latter case there are more nausea and vomiting. Commonly from some inflammation communicated to the stomach. (Says Dr Cullen) Inflammation of the concave surface of the liver, may readily be communicated to the gall bladder and biliary ducts, and this, Cullen thinks, is the only case of idiopathic hepatitis attended with jaundice.

When the inflammation acts with extreme violence the increased secretion of the bile is sometimes thrown into the first passages, occasioning considerable derangement in the state of the evacuations.

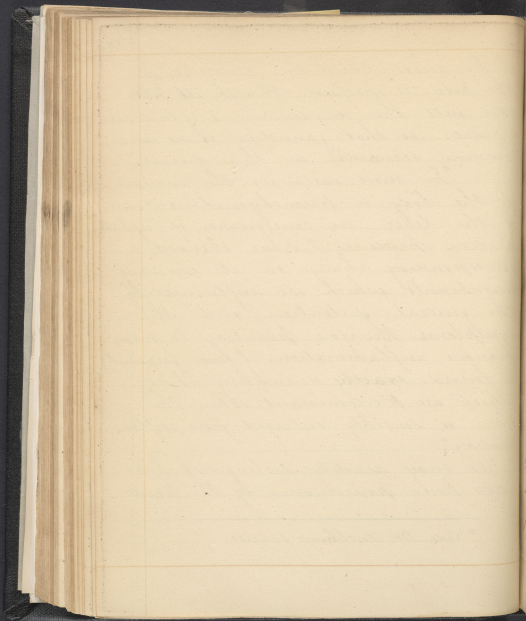


In most cases the secretion of the bile is profuse, though its passage into the duodenum is oftentimes impeded; so that jaundice is no uncommon occurrence in this disease.

In most instances the increase of the body or parenchymatous texture of the liver in consequence of inflammation produces I have observed, a corresponding change on its investing membranes, which are influenced by the general distention and the symptoms therefore peculiar to membranous inflammation, I have frequently found, exactly resembling those which are predominant when the liver is sensibly enlarged from inflammation*.

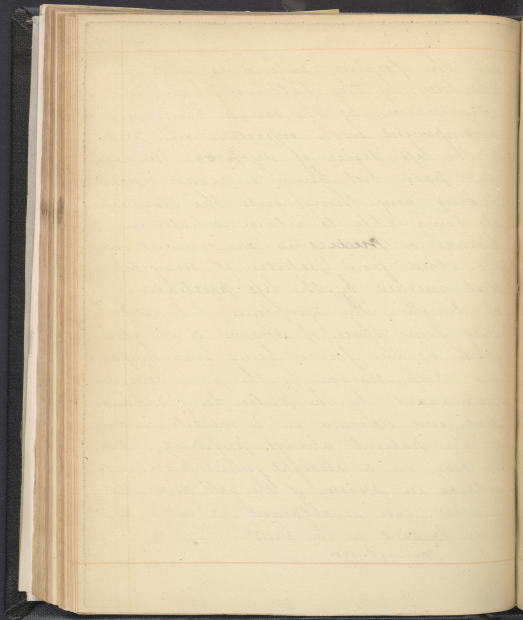
We may readily distinguish hepatitis from pneumonia by the pain

* Vide Dr Fothergill's treatise



in the former extending into the shoulder; by the sallowness of the countenance; by the cough being unaccompanied with expectoration; and by the less degree of dyspnoea, the heat and pain not being increased upon taking any thing into the stomach, its being able to retain whatever liquids or medicines are received into it; And from Gastritis it may be distinguished by the less prostration of strength. The symptoms of hepatitis vary from those of spasm of the gall ducts by the former being unaccompanied with nausea, by the pain being permanent, by the pulse being one hundred and upward in a minute, and by the patient always preferring to keep the body in a straight quiescent posture; whereas in spasm of the gall ducts the greatest ease is obtained by bending the body forward on the knees.

* Thomas's Practice



I have now laid down the causes, symptoms, and most general distinguishing indications of the disease in question. I shall proceed to take a cursory view of the treatment applicable to this form of the malady.

In describing the treatment of any disease little more than general principles can be communicated: in every case certain variations occur which require judgment, experience and observation and observation in the application of remedies.

An exact line of proceeding cannot therefore be founded suited to each constitution and habit, hence an extensive field is presented for the exercise of discretionary skill by the medical practitioners.

The first indication in the cure of acute hepatitis is to obviate inflammatory action and to accomplish this, the usual means of subduing inflammation are to be rigidly enforced.

After general and copious bleeding the most early recourse should be had to depletion from the part by Cupping. Should the increased vascular action continue unabated, venisection should be repeated in the course of a few hours, say eight or ten, and to the same extent, for here no time is to be lost in checking this violently acute stage of the disease. The bleeding should be encouraged for some time by repeating the operation of Cupping, or when Cupping is objected to by the patient leeches may be substituted. It will be proper in bleeding from the arm to make a large orifice, and draw twenty or twentyfive ounces of blood at once if the phlogistic symptoms run high.

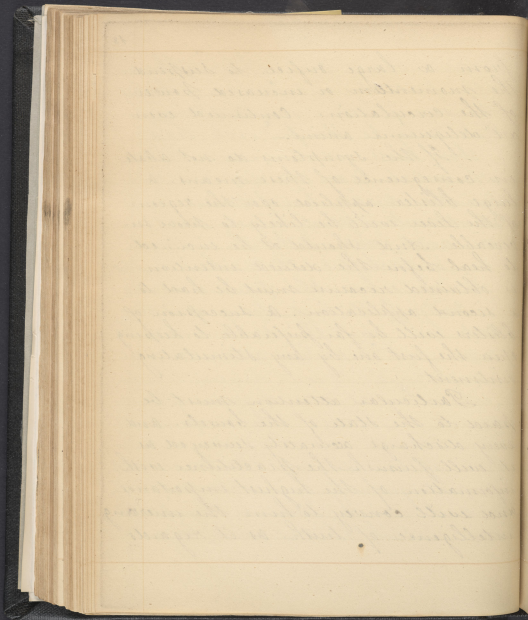
Some practitioners disapprove of bleeding from the system in this disorder, and recommend in its stead

to draw blood from the neighbourhood of the part. by means either of leeches or by scarifications and cupping, which may be the preferable way in those cases which are unattended with much pain, or pyrexia, or where the disease has followed a violent intermittent or remittent fever, and consequently the patient is in a cachectic state: but in those instances where the pain is acute the pulse full and strong and the febrile heat and thirst are considerable, copious and repeated venesection will be necessary. It will however be better to take away at once a quantity proportioned to the age and temperament of the patient, and the degree and extent of the disease, than to abstract an equal quantity by repeated and small bleedings. And as has been before stated blood should be drawn

from a large surface. to suspend the momentum or increased power of the circulation Continued even ad deliquium animi.

If the symptoms do not abate in consequence of these means. a large blister applied over the region of the Liver will be likely to prove serviceable. And should it be inclined to heal before the desired intention is obtained recourse must be had to a second application. A succession of blisters will be far preferable to keeping open the first one by any stimulating ointment.

Particular attention must be paid to the state of the bowels. and every discharge accurately surveyed as it will furnish the practitioner with information of the highest importance and will convey to him the unerring intelligence of truth. as it regards



*The state of the secretions**

In every case of acute hepatitis the whole antiphlogistic plan is to be rigorously pursued, particularly where the febrile symptoms run high and endanger a termination in suppuration: and therefore it will be understood that a farinaceous or gruel diet is to be strictly enjoined at the commencement, carefully shunning animal food, in broths or otherwise, from its strong disposition in this state of the system to induce a putrescent disposition and thus aggravate the already septic tendency of the principal secreted fluids. Thirst should be assuaged by the free use of cooling drinks impregnated with vegetable acids. The apartment of the sick should be kept ventilated by the free admission of cool air. And the intestines

* Vide Faithham on disease of Liver

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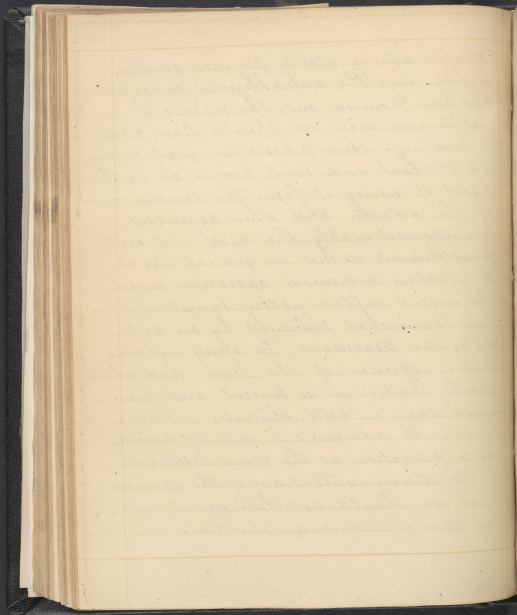
The following
is a copy of some letters
which were written to me
by the friends of the
cause of the oppressed
in the year 1840. I have
been so much interested
in the subject of the
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are to be kept perfectly open with gentle purgatives; in all stages of the disease. Cooling purgatives such as neutral salts with calomel and Jalap to be freely administered and every possible means exerted to relieve the general distention of the liver by emulging it of its accumulated secretion, which is a matter of the utmost consequence, and should ever be kept in view by the practitioner.

As in other inflammatory complaints, we may excite diaphoresis by means of nauseating doses of Tartarised Antimony to which we may join the nitrate of potash. The pediluvium with a plentiful use of mild diluents and cooling drinks will also be proper. The administration of the warm bath may be advisable in those cases when the skin is dry and the pain in the region of the liver very severe.

Vide Thomas's practice

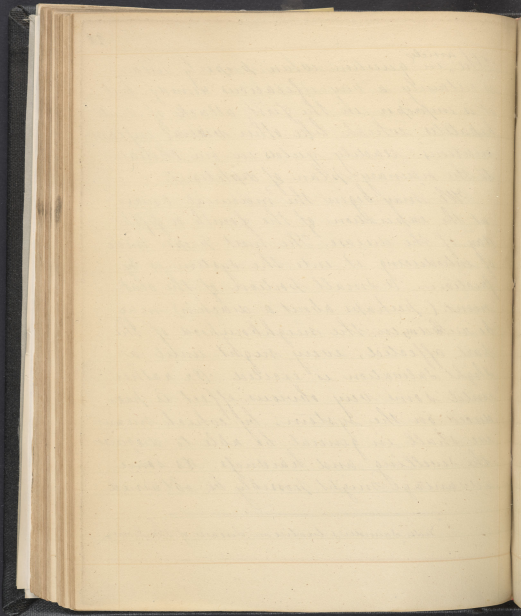
If after having strictly pursued for four or five days the antiphlogistic course which has been pointed out, the disease be found not to give way, we should have recourse to mercury. Some physicians particularly in the East and west Indies are in the habit of using it from the commencement of the attack. and others again (who are unquestionably the most judicious practitioners) do not in general use it to effect a mercurial operation until the urgent inflammatory symptoms have been somewhat subdued by an antiphlogistic treatment. In every inflammatory affection of the Liver, and where febrile excitement is present, and more particularly in cold climates, although it may be advisable to employ mercury as a purgative at the commencement of the disease, still I am of the opinion that we should not then use it with the view of inducing salivation.



The ^{article} in question when properly used is certainly a very efficacious remedy, but it is improper in the first attack of Acute hepatitis which like other visceral inflammations readily yields in our climate to the ordinary plan of depletion.

We may begin the mercurial course at the expiration of the fourth or fifth day of the disease. The most proper mode of introducing it into the system is by friction. A small portion of the ointment (perhaps about a drachm) may be rubbed in the neighbourhood of the part affected, every night until a slight salivation is excited. Or rather until some very obvious effect is produced on the system; by which means we shall in general be able to disperse the swelling and hardness. As some advantage might possibly be obtained

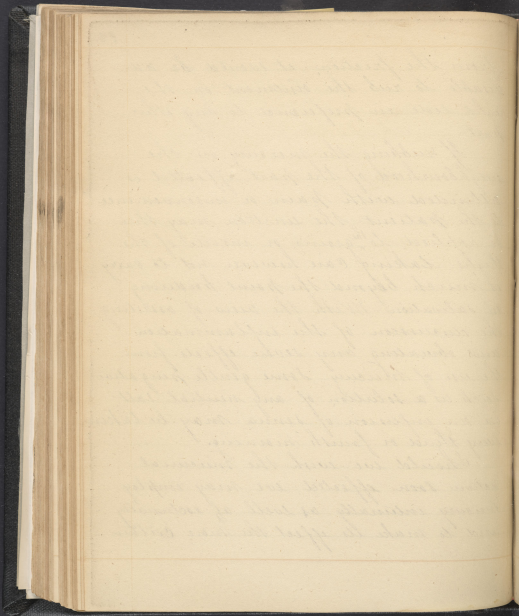
* Vide Saunders's treatise on diseases of the Liver



from the friction, it would be advisable to rub the ointment on the right side in preference to any other part.

If rubbing the mercury on the neighbourhood of the part affected is attended with pain or inconvenience to the patient, the unction may then be applied to ^{the} groins or inside of the thighs. Taking care however not to carry it much beyond the point bordering on salivation. With the view of assisting the discussion of the inflammation and obviating any severe effects from the use of mercury. Some gentle purgation such as a solution of any neutral salt in an infusion of senna may be taken every third or fourth morning.

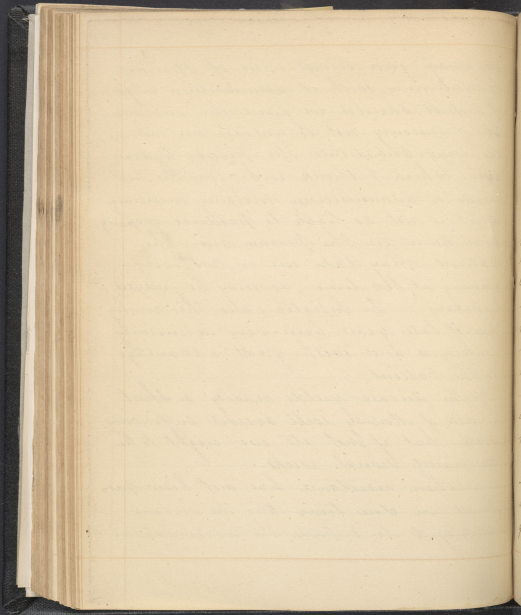
Should we wish the mercurial action soon effected we may employ mercury internally as well as externally and to make its effect the more certain



we may join small doses of Opium or Antimony with it, administered in form of a pill, Should we find the submucate of Mercury not to answer our wishes, we may substitute the pilula hydrae gyri. which I think is by far the best mode of administering Mercury internally, as it is not so liable to produce griping and pain in the primæ viæ. The patient may take one or two ^{pills} every evening at bed time. as may be judged necessary. In hepatic cases this remedy has of late years been very extensively employed and with great advantage to the patient.

If the disease yields readily a short course of Mercury will answer sufficiently well. but if not its use ought to be continued several weeks.

When assistance has not been procured in due time or the means employed to subdue the inflammation.



have not the desired effect, and suppuration ensues we must endeavour to promote the formation of proper pus and the discharge of the abscess externally.

To effect the first of these intentions the patient should be directed to use tonic medicines and a generous nutritive diet with a moderate quantity of wine. This plan ought to be continued until suppuration is completed. To promote the second intention a large emollient poultice should be kept constantly applied over the part well fomenting it twice a day previous to its application. When the tumour points outwards, and has become somewhat soft with evident fluctuation, it should be immediately opened in the most dependent part, and the pus discharged.

Abscesses of the Liver when opened heal sooner than similar affections in other parts therefore it is advisable whenever we have good grounds for suspecting an abscess in

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the liver whether it be on the convex side
 or not, to make an opening in it and
 evacuate its contents in preference to
 suffering it to break internally by which its
 contents must be evacuated into the
 abdomen to the almost certain destruction
 of the patient.

Can
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